



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : BAXTER, R.
Appl. No. : 10/765,959
Filed : January 29, 2004
Title : HYDRAULIC CLUTCH ACTUATOR FOR LIMITED
SLIP
DIFFERENTIAL ASSEMBLY
Group Art Unit : 3681
Examiner : RODRIGUEZ, S.
Docket No. : 08200.709

REPLY BRIEF UNDER 37 C.F.R. § 41.37

April 3, 2006

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Answer mailed February 23, 2006, Appellant respectfully requests the Board of Patent Appeals and Interferences to consider the following additional arguments and reverse the decision of the Examiner in whole.

Applicant also has requested an Oral Hearing.

REMARKS

The Examiner maintains the rejection of claims 1, 4-11, 13-20 and 23 under 35 USC 102(b) as being anticipated by Porter '654.

The Examiner alleges that the definitions of the term “differential” by the “Dictionary of Automotive Engineering” and the Dictionary of Mechanical Engineering are limiting. The Examiner then refers to the internet site www.autozine.org that shows an inter-axle viscous coupling in a part time four-wheel-drive (4WD) system for a motor vehicle. This inter-axle viscous coupling is called by the author of the site “viscous coupling center differential”.

Applicant visited this internet site and found out in the “About AutoZine” section of the website that Autozine is a personal website established on September 1997 by someone named Mark Wan, resident of Hong Kong. The author of the AutoZine website, Mark Wan, admits that he is an amateur in the automotive art as he “never studied or worked in automotive field.” In fact, he explains that he graduated from electronic engineering of CUHK in 1995 and is now working for a laboratory responsible for safety certification of electrical goods. The author, Mark Wan, says that cars are just his hobby. Later in this section the author again admits that he sees his personal website (AutoZine) “as one of my hobbies that I should enjoy when doing it.” Furthermore, the author, Mark

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Wan, states that he is not proficient in English, as his native tongue is Chinese. In other words, the AutoZine is an amateur website created and run by a person who is not one of ordinary skill in the mechanical/automotive art and is not proficient in English.

Moreover, as far as internet is concerned, Applicant turned to the well known internet encyclopedia “Wikipedia”. In the article related to the four-wheel-drive (4WD) system of the motor vehicles “Wikipedia” affirms Applicant’s position stating that “A differential allows one input shaft to drive two output shafts with different speeds. The differential distributes torque (angular force) evenly, while distributing angular velocity (turning speed) such that the average for the two output shafts is equal to that of the input shaft. Each powered axle requires a differential to distribute power between the left and right sides. If all four wheels are to be driven, a third differential can be used to distribute power between the front and rear axles.” (emphasis added).

The article further discloses that “Many lower-cost vehicles entirely eliminate the center differential”. Such a 4WD system is shown in the AutoZine and cited by the Examiner. In this case, these 4WD vehicles behave as two-wheel-drive (2WD) vehicles under normal conditions. When the drive wheels begin to slip, the viscous coupling discussed above will join the front and rear axles. Such systems distribute power unevenly under normal conditions, and thus do not help prevent loss of traction; they only enable recovery once traction has been lost. The article in “Wikipedia” states that

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4WD/AWD systems of this type usually have the front wheels powered during normal driving conditions and the rear wheels served via a viscous coupling.

Therefore, Applicant would like to reiterate that the definition of the term “differential” used by Applicant is supported by the Dictionary of Mechanical Engineering and the Dictionary of Automotive Engineering, which are the most authoritative sources in the automotive and/or mechanical art and could hardly be interpreted as “limited”. Applicant believes that the definition of the term “differential” based on the above dictionaries is the most accurate and broad definition, as a person of ordinary skill in the automotive and/or mechanical art would refer to these dictionaries in search of the most proper definition of the term “differential”. Unfortunately, although the Examiner mentions that Applicant referenced to the above dictionaries, he virtually ignores them in favor of the inaccurate definition of the term “differential” cited in an amateur website of dubious value, created and run by a person who is not professionally trained or somehow associated with the mechanical/automotive art.

Moreover, the device of Porter discloses the “hydraulic coupling” which is the hydraulically actuated friction clutch assembly including a friction clutch pack 114 loaded by the piston assembly 80 using hydraulic pressure generated by a hydraulic pump 78. One of ordinary skill in the mechanical/automotive art would readily realize that the

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viscous coupling referred to by the Examiner in the AutoZine website and the “hydraulic coupling” of Porter are substantially different both structurally and functionally.

Therefore, one of ordinary skill in the art would not interpret the hydraulic coupling 44 of the drive axle assembly 34 as the differential. Accordingly, the rejection of claims 1, 4-11, 13-20 and 23 U.S.C. 102(b) as being anticipated by Porter is improper.

In view of the above reasons, it is respectfully submitted that this application is in condition for allowance, and the rejection of claims of the present invention should be overruled.

Respectfully submitted:
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By: _____



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